DRAFT Upper Osage District Prairie Conservation Areas

Taberville Prairie CA Wah'Kon-Tah Prairie CA Monegaw Prairie CA Gay Feather Prairie CA Bristow CA Osage Prairie CA Little Osage Prairie CA

Ten Year Area Management Plan FY 2014-2023



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OVERVIEW

Area Name	Area Number	Year Acquired	Acreage	County	Administrative Responsibility	Maintenance Responsibility
Taberville Prairie CA	6124	1959	1680	St. Clair	Wildlife	Wildlife
Wah'Kon- Tah Prairie CA ¹	7414	1973	3030	Cedar/ St. Clair	Wildlife	Wildlife
Monegaw Prairie CA ¹	7817	1975	270	Cedar	Wildlife	Wildlife
Gay Feather Prairie CA ²	7416	1976	114	Vernon	Wildlife	Wildlife
Bristow CA	9240	1992	158	Vernon	Wildlife	Wildlife
Osage Prairie CA	6130	1959	1545	Vernon	Wildlife	Wildlife
Little Osage Prairie CA ³	7415	1972	80	Vernon	Wildlife	Wildlife

¹Owned by The Nature Conservancy and Missouri Department of Conservation

² Owned by Missouri Prairie Foundation (Gayfeather Prairie) and Missouri Dept of Conservation

³ Owned by The Nature Conservancy

Statements of Purpose:

A. Strategic Direction

The prairie conservation areas in the Upper Osage District of the Kansas City Region are primarily native grasslands with inclusions of remnant prairie, prairie plantings, nonnative grass plantings, headwater streams, cropland, and forest land along prairie stream riparian zones and in small blackjack oak woodland patches. Management is focused on a diversity of tallgrass prairie grassland flora and fauna resources in accordance with the Strategic Guidance for Missouri Grasslands with emphasis on providing habitat needed for grassland birds, herptiles, mammals, and invertebrates; encouraging plants of high floristic quality; and providing compatible recreational opportunities.

B. Desired Future Condition

The desired future condition of the prairies in the Upper Osage District of the Kansas City Region is a healthy tallgrass prairie ecosystem and prairie headwater stream edge community (Nelson, 2005). This will require the control of invasive species on the areas, maintaining water quality in the watersheds, and promoting public awareness and use of these areas.

C. Federal Aid Statement

Taberville Prairie CA and Osage Prairie CA, or a portion thereof, were acquired with Pittman-Robertson Wildlife Restoration funds to restore and manage wildlife, conserve and restore suitable wildlife habitat and provide public access for hunting and other wildlife-oriented recreation.

Bristow CA, or a portion thereof, was acquired with federal funds and donated to the State to provide fish and wildlife benefits and land conservation.

GENERAL INFORMATION AND CONDITIONS

Area	Priority Area	Natural Area
Taberville Prairie CA	Marmaton/Wah'Kon-Tah Conservation	Taberville Prairie
	Opportunity Area (COA); Taberville/ El Dorado	Natural Area (1360
	Springs Grassland Coalition Focus Area; Baker	acres)
	Branch Priority Watershed	
Wah'Kon-Tah Prairie CA	Marmaton/ Wah'Kon-Tah COA;	None
	Taberville/El Dorado Springs Grassland Coalition	
	Focus Area; Little Clear Creek Aquatic COA	
Monegaw Prairie CA	Marmaton/Wah'Kon-Tah COA	None
Gay Feather Prairie CA	None	None
Bristow CA	None	None
Osage Prairie CA	Western Cherokee Grassland COA; Little	Osage Prairie
	Drywood Creek Priority Watershed	Natural Area (679
		acres)
Little Osage Prairie CA	Western Cherokee Grassland COA; Little	Little Osage
	Drywood Creek Priority Watershed	Prairie Natural
		Area (80 acres)

I. Special Considerations

Area	Species of Conservation Concern	Caves	Springs	Other
Taberville Prairie	Yes ¹	None	None	National Natural
CA				Landmark
Wah'Kon-Tah	Yes ¹	None	None	None
Prairie CA				
Monegaw Prairie	Yes ¹	None	None	None
CA				
Gay Feather	None	None	None	None
Prairie CA				
Bristow CA	None	None	None	None
Osage Prairie CA	Yes ¹	None	None	None
Little Osage	Yes ¹	None	None	None
Prairie CA				

II. Important Natural Features and Resources

¹ Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

Area	Parking Lots	Buildings	Pond dams	Managed ponds
Taberville Prairie	4	0	7	0
CA				
Wah'Kon-Tah	2	4	16	1
Prairie CA				
Monegaw Prairie	1	0	1	0
CA				
Gay Feather	1	0	0	0
Prairie CA				
Bristow CA	1	0	1	0
Osage Prairie CA	2	0	6	0
Little Osage	1	0	1	0
Prairie CA				

III. Existing Infrastructure

Area	Deed	Federal	Easements	Cultural	Hazards	Endangered	Boundary
	Restrictions	Interest		Resources		Species	Issues
Taberville	None	Yes ¹	KAMO	Yes ²	None	Yes ⁴	None
Prairie			Electric				
CA			Co.				
Wah'Kon-	Cooperative	None	Magellan	Yes ²	Yes ³	Yes ⁴	None
Tah	Agreements		Pipeline				
Prairie	with TNC						
CA							
Monegaw	Cooperative	None	None	Yes ²	None	Yes ⁴	None
Prairie	Agreements						
CA	with TNC						
Gay	Cooperative	None	None	Yes ²	None	None	None
Feather	Agreements						
Prairie	with MPF						
CA							
Bristow	None	Yes ¹	None	Yes ²	None	None	None
CA							
Osage	None	Yes ¹	None	Yes ²	None	Yes ⁴	None
Prairie							
CA							
Little	Cooperative	None	None	Yes ²	None	Yes ⁴	None
Osage	Agreements						
Prairie	with TNC						
CA							

IV. Area Restrictions or Limitations

¹ Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

² Yes, records kept with MDC Environmental Compliance Specialist. Managers should follow "Best Management Practices for Cultural Resources" found in the *MDC Resource Policy Manual*.

³ Restrictions on an abandoned missile site prohibit breaking or digging through the ground surface at the site.

⁴ Endangered Species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

- 1) The native grasslands of the Upper Osage District are unique and considered high quality with a suite of native plants, animals, and insects of which many are species of conservation concern and are endemic to remnant prairie. These grasslands are representative of the tallgrass prairie that occurred historically in the Osage Plains ecological section of Missouri. They provide opportunity for prairie enthusiasts to experience the open vista and treeless topography. These grasslands also offer an occasion for a wide array of studies on the flora and fauna through management evaluation projects. Several studies have been conducted in the past and will continue into the future. Challenges continue with the understanding of the effects of management practices on conservative plants and animals of the prairie. As these effects are understood, managers have the opportunity to use adaptive management to provide a diversity of habitat on the native prairie. One of the biggest challenges on native grasslands is managing woody plant succession and keeping the prairie open. The prairies that have populations of Greater Prairie Chicken are managed to provide the best habitat possible for this and other grassland-dependent birds.
- 2) Several of the areas have non-native grasses and forbs that were present when MDC began management of the ground. Many of the fields have a small number of prairie species among the non-native vegetation. There is opportunity to expand the native prairie species. The challenge is to eradicate exotic plant species that are very persistent. Noxious weeds must be controlled according to state law.
- 3) Plant succession has the greatest effect on the grasslands covered under this plan. Annual disturbance provides a diversity of successional stages on the prairies. Early successional habitat provides for insect production, recruitment of prairie plants, and bird brood-rearing. Management practices that are used to manipulate succession include prescribed burning, haying, livestock grazing, brush hogging, and high clipping. Agricultural cropping has been used on some areas to promote annual plant growth and supplement winter food source for wildlife.
- 4) Trees occur mainly along the larger streams that traverse the prairie and in small stands of oaks near the edge of some of the prairies. Most of these stands are managed as transitional woodlands from the open prairie. The natural area riparian along Landon Branch on Osage Prairie is classified as a mesic sandstone forest which is an example of woods associated with larger prairie streams.

Management Objective 1: Maintain a diverse prairie natural community.

Strategy 1: Survey and monitor areas for rare and endangered species.

Strategy 2: Monitor all open lands and grasslands for woody encroachment.

Strategy 3: Follow the Recommendations for Recovery of Greater Prairie-

Chicken in Missouri (MDC 2006) for habitat needs for that species where applicable.

Strategy 4: Implement best management practices to set back woody plant succession, diversify plant structure, and maintain high-quality prairies.

Management Objective 2: Restore and re-construct native grasslands including the control of exotic species.

Strategy 1: Identify areas of low-quality restorable prairie.

Strategy 2: Identify areas, such as agricultural fields, for reconstruction with native prairie plants.

Strategy 3: Promote native seed harvest with concerted efforts through private and public entities.

Strategy 4: Monitor and treat all portions of the areas to eradicate exotic and invasive flora or fauna.

Strategy 5: Use best management practices to seed prairie plantings, control exotic species, and restore low-quality prairie.

Management Objective 3: Manage the forest and woodland resources.

Strategy 1: Inventory the forest and woodland stands on the areas and assess the management that is needed for those sites.

Strategy 2: Use best management practices for forest management.

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- Invasive and nuisance plant species in ponds. Monitor for invasive species in all ponds and control if needed. Eurasian watermilfoil is an invasive, non-native plant that can reach nuisance levels. Control and suppression of this plant is important to managing the fisheries in area impoundments. Other plants can reach nuisance levels including Southern Naiad, coontail, and filamentous algae and may also warrant control measures.
- 2) Managing landscapes on a watershed basis to reach their potential diversity and community integrity of native fish species in streams on CAs and in downstream reaches. Land management within a watershed affects conditions locally and downstream of the site. Protect riparian areas and leave filter strips between streams and disturbed areas to protect water quality and habitat in streams.

3) There are several impoundments scattered across the prairie areas in this plan. Some ponds have fish in them, but most are fishless. They are of various size, depth, and age. Some impoundments have been evaluated for fishing potential while others have yet to be evaluated.

Management Objective 1: Increase fishing opportunities for local citizens.

Strategy 1: Identify existing ponds suitable for fishing on the areas. Factors that contribute to a suitable pond include depth, water quality, proximity to adequate parking, proximity to other fishing opportunities, and watershed management. **Strategy 2:** Assess sport-fish populations on an "as-needed" basis in all fishing ponds on the areas. Management emphasis will be to provide a balanced fishery for largemouth bass relative to other sunfish. Supplemental stocking and regulation changes will be utilized when appropriate in ponds. Channel catfish will be stocked periodically to maintain a viable fishery.

Strategy 3: Monitor aquatic vegetation condition in fishing impoundments, and provide appropriate control measures, when necessary. This especially means monitoring the expansion of Eurasian water milfoil and other exotics in all prairie ponds covered by this plan.

Management Objective 2: Protect clean and healthy waters.

Strategy 1: If livestock grazing is going to be used on the area, maintain a 100-foot minimum grazing exclusion zone around fishing ponds. Creation of limited access watering points for livestock is acceptable provided they are constructed to minimize the area available to livestock and discourage their loafing in the access. **Strategy 2:** If livestock grazing is going to occur on an area, a grazing plan will be designed in collaboration with Wildlife and Fisheries staff prior to introduction of the animals.

Management Objective 3: Conserve plants, animals and their habitats.

Strategy 1: Manage for aquatic diversity by providing diverse habitats and good water quality for streams, ponds and downstream neighbors. Refer to Watershed and Steam Management Guidelines (MDC 2009).

Strategy 2: Identify and assess aquatic communities in headwater streams. **Strategy 3:** Identify impoundments, which are fishless or can be made fishless, to be managed for reptile and amphibian habitat.

VII. <u>Public Use Management Considerations</u>

Challenges and Opportunities

- The grassland areas in the Upper Osage District offer numerous public use opportunities. Hunting is allowed on MDC-owned areas but regulations for deer hunting have restricted methods. Hunting and Fishing regulations approved by MDC have been reviewed and agreed to by MPF and TNC respectively on prairies they own that are managed by MDC.
- 2) The native prairie provides opportunities for the public to visit and experience first-hand the large variety of plants, the openness of the landscape, and offer the chance to see rare species. One key component for managing the areas is to build and maintain relationships with neighboring landowners.

Management Objective 1: Provide public hunting and fishing opportunities.

Strategy 1: Manage diverse habitat for wildlife game species to encourage hunting.

Strategy 2: Where suitable, improve fishing opportunities in selected ponds.Strategy 3: Post signage to inform the public of hunting and fishing regulations.

Management Objective 2: Improve educational and interpretive opportunities.

Strategy 1: Communicate recreational opportunities.

Strategy 2: Schedule events, workshops, and programs that will provide public groups information about the grasslands, the species that live there, and the management that is needed to maintain a native prairie.

Strategy 3: Identify seasonal walking trails that will provide access to the prairie and provide wildlife viewing opportunities. Trails should be simple mowed paths with no infrastructure, installed for use during appropriate seasons and can be temporary in nature.

Management Objective 3: Maintain a good working relationship with adjoining landowners.

Strategy 1: Work with neighbors to minimize any boundary or trespass issues. **Strategy 2:** Promote habitat management on neighboring landowners' properties.

VIII. Administrative Considerations

Challenges and Opportunities

 Several of the prairie areas are owned by TNC and MPF. MDC manages these prairies under cooperative agreement with these entities. Opportunity occurred in early 2000s to meet annually with TNC to cooperatively develop an Annual Management Plan on Wah'Kon-Tah Prairie and Monegaw Prairie. Recently annual management planning has occurred on MPF prairie areas that MDC manages.

- 2) Roads that provide access to the prairie areas in this district are primarily gravel and maintained by St. Clair and Vernon County road districts. Some roads are poorly maintained and at times they become impassible for the public.
- 3) Maintain area infrastructure at current levels.

Management Objective 1: Develop an Annual Management Plan on TNC and MPF areas managed by MDC.

Strategy 1: Meet with personnel from TNC and MPF annually to assess management accomplishments from previous year and agree on proposed management activities for the next year.

Management Objective 2: Continue working relationship with St. Clair and Vernon County road districts.

Strategy 1: Participate in County Aid Road Trust (CART) when appropriate.

Management Objective 3: Maintain area infrastructure at current levels in accordance with MDC policy.

Strategy 1: Maintain area parking lots for area users.

Strategy 2: Maintain area perimeter fences with neighbors in usable condition. Execute Fencing Agreements for fence construction as needed with the adjoining landowners.

Strategy 3: Conduct maintenance on the buildings at Wah'Kon-Tah Prairie for seed harvest and management operations.

Lands proposed for acquisition/disposal:

When available, adjacent properties may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities as identified in the annual Department land acquisition priorities may be considered.

MANAGEMENT TIMETABLE

	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Terrestrial Re	Terrestrial Resources Management									
Objective 2										
Strategy 1	Х	Х	X							
Strategy 2	Х	Х	X							
Aquatic Reso	urce Mar	nagement								
Objective 1										
Strategy 1	Х	Х								
Strategy 2	Х	Х		Х	Х		Х	X		Х
Objective 3										
Strategy 2		Х	X				Х	Х		
Strategy 3		Х								
Public Use M	lanageme	nt								
Objective 1										
Strategy 2	Х	Х		Х	Х		Х	X		Х
Objective 2										
Strategy 2	Х		X		Х		Х		X	
Administrativ	ve Consid	erations								
Objective 2										
Strategy 1	Х		X		Х		Х		Х	

Strategies are considered ongoing unless listed in the following table:

APPENDICES

References:

- MDC. 2013. Strategic Guidance for Missouri Grasslands. Missouri Department of Conservation, Jefferson City, Missouri.
- MDC. 2006. Recommendations for recovery of greater prairie-chicken in Missouri (FY07-FY11). Missouri Department of Conservation, Jefferson City, Missouri.
- MDC. 2009. Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation. Missouri Department of Conservation, Jefferson City, Missouri.
- Nelson, P.W. 2005. The terrestrial natural communities of Missouri, revised edition. The Missouri Natural Areas Committee, Jefferson City, Missouri.

Contact information for companies with easements:

KAMO Company David Coale 800 South 1st Street El Dorado Springs, MO 64744 417 – 876 - 8808

Magellan Pipeline Company P.O. Box 777157 Henderson, NV 89077 Ken Clagett, Energy Projects Consultant <u>Ken@kenclagett.com</u> 702 – 378 – 8200

Attachments:

Attachment 1: Taberville Prairie Area Background Attachment 2: Taberville Prairie Area Map Attachment 3: Taberville Prairie 2013 Land Cover Attachment 4: Taberville Prairie Location of Streams Attachment 5: Taberville Prairie Management Units Waterline and Easements Attachment 6: Wah'Kon-Tah Prairie Area Background Attachment 7: Wah-Kon-Tah Prairie Area Map Attachment 8: Wah'Kon Tah Prairie 2013 Land Cover Attachment 9: Wah'Kon-Tah Prairie Location of Streams

- Attachment 10: Wah'Kon-Tah Prairie Management Units Water Wells, Lines, Easements
- Attachment 11: Monegaw Prairie Area Background
- Attachment 12: Monegaw Prairie Area Map
- Attachment 13: Monegaw Prairie 2013 Land Cover
- Attachment 14: Monegaw Prairie Location of Streams
- Attachment 15: Monegaw Prairie Management Units
- Attachment 16: Gay Feather Prairie Area Background
- Attachment 17: Gay Feather Prairie CA Area Map
- Attachment 18: Gay Feather Prairie 2013 Land Cover
- Attachment 19: Gay Feather Prairie Location of Streams
- Attachment 20: Gay Feather Prairie Management Units
- Attachment 21: Bristow Conservation Area Background
- Attachment 22: Bristow CA Area Map
- Attachment 23: Bristow CA 2013 Land Cover
- Attachment 24: Bristow CA Location of Streams
- Attachment 25: Bristow CA Management Units and Easements
- Attachment 26: Osage Prairie Area Background
- Attachment 27: Osage Prairie CA Area Map
- Attachment 28: Osage Prairie 2013 Land Cover
- Attachment 29: Osage Prairie Locations of Streams
- Attachment 30: Osage Prairie Management Units and Water Lines
- Attachment 31: Little Osage Prairie Area Background
- Attachment 32: Little Osage Prairie Conservation Area Map
- Attachment 33: Little Osage Prairie 2013 Land Cover
- Attachment 34: Little Osage Prairie Locations of Streams
- Attachment 35: Little Osage Prairie Management Units

Attachment 1: Taberville Prairie Area Background

Taberville Prairie was the first prairie purchased by the Missouri Conservation Department for management of the Greater Prairie Chicken. Acquisition of various tracts took place from 1959 to 1961. The area was named after the town of Taberville and its first physician, Dr. Taber. The elevation of the area ranges from 760' above mean sea level (MSL) to 869' above MSL.

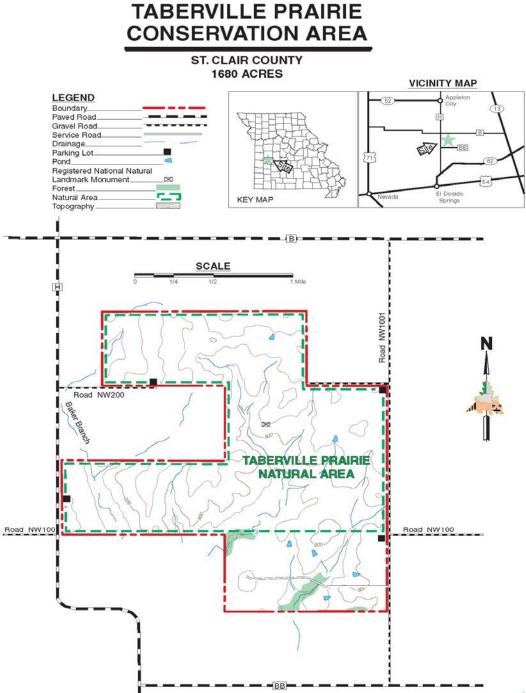
Prior to 1959, haying was the main use of the area. Grazing did occur on portions of the central units at moderate rates. Since 1959 a hay-rest rotation has been carried out on all units of prairie except one unit designated as a control. Grazing was re-introduced in 2002 as an experiment for patch-burn grazing method. Patch-burn grazing was studied in a Management Evaluation project in portions of T-5, 6&7 by Resource Science Division to monitor effects of this type of grazing on plants, grassland birds (including prairie chicken), and grassland insects. Prescribed fire has been used on all units of native prairie.

In 1971 a State Natural Area was designated on the north portion of the area which contains native prairie. In 1976 Taberville Prairie was designated as a National Natural Landmark with a marker plaque located on top of a ridge in Unit T-5N.

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	1360		81.0%
Native Warm Season Grass Plantings	116		7.0%
Crop Fields	96		5.7%
Prairie Restoration	71		4.2%
Trees	20		1.2%
Old Field	12		0.7%
Roads and Parking Lots	5		0.2%
Total	1680		100%
Stream frontage		39,526	

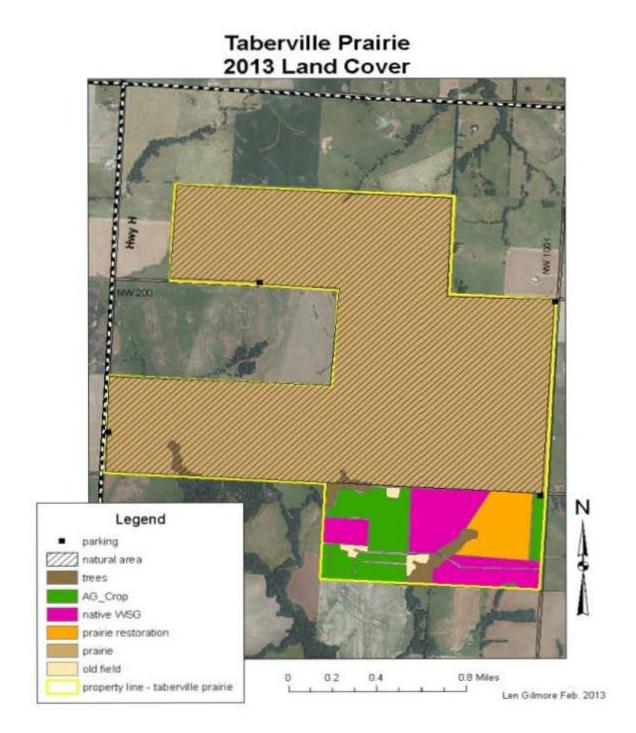
Current Land and Water Types

Attachment 2: Taberville Prairie Area Map

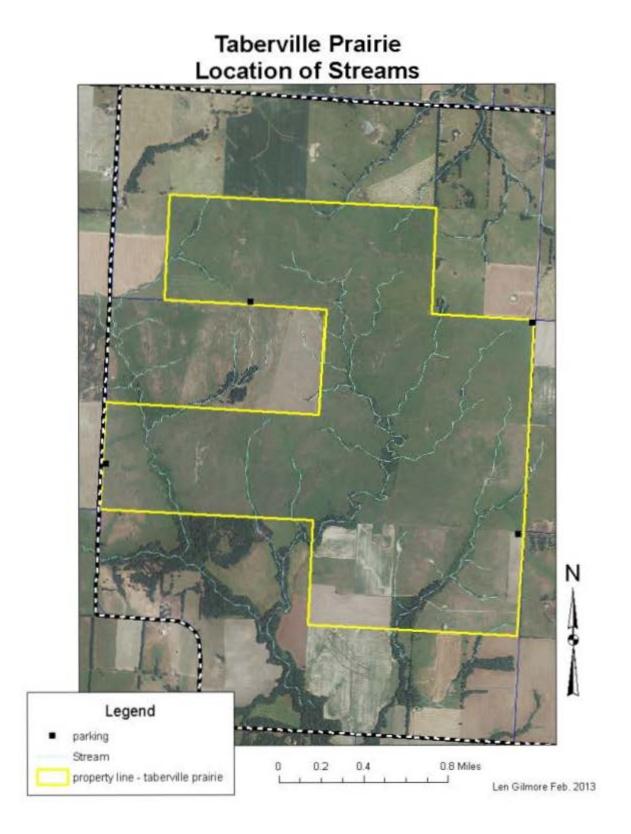


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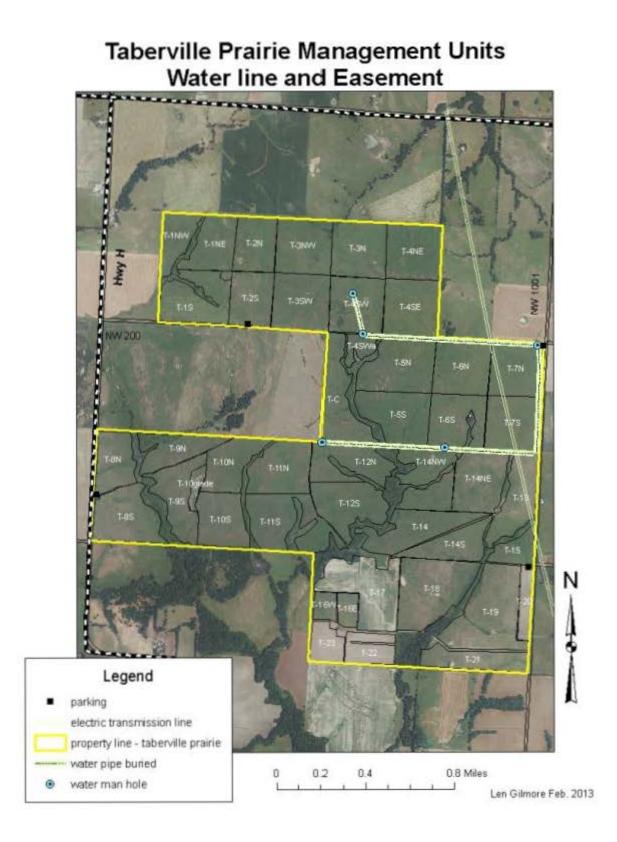
Attachment 3: Taberville Prairie 2013 Land Cover



Attachment 4: Taberville Prairie Location of Streams



Attachment 5: Taberville Prairie Management Units Waterline and Easements



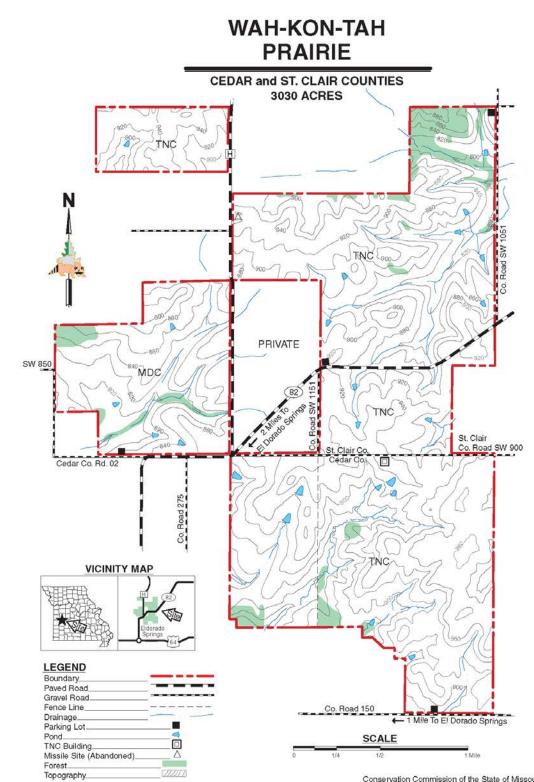
Attachment 6: Wah'Kon-Tah Prairie Area Background

Portions of Wah'Kon-Tah Prairie were purchased in 1973, 1976, and 1981 by The Nature Conservancy with funds provided by Miss Katherine Ordway. The area was named for the Great Spirit or Great Mystery of the Osage tribe. A portion of the prairie north of Hwy. 82 was used as a golf course in the early years of El Dorado Springs. The south portion of the prairie was named MO-KO Prairie prior to The Nature Conservancy purchasing the Thoreson Ranch which linked Wah'Kon-Tah Prairie with MO-KO Prairie. MO-KO Prairie was purchased with Miss Katherine Ordway funds by The Nature Conservancy in 1974 through 1975 and was named after the Indian word for medicine. Later, Missouri Dept. of Conservation purchased the Foust tract. The whole area was named Wah'Kon-Tah Prairie after that. The elevation of the area ranges from 820' above MSL to 980' above MSL.

Prior to purchase much of the area (management units WK-9&10, MK-1&2, and all the Thoreson and Foust tracts) was grazed annually. On MK-1 a moderate grazing rotation was carried out after purchase until 1984. Since 1985 a rotation of haying, grazing, and burning has been conducted on MK-1&2. The remainder of the area was annually hayed with some light grazing. Prior to acquisition, most of the Thoreson tracts and a small portion of the Foust tract had been overseeded to tall fescue. Beginning in 1980 the management changed to a rotation of hay-burn. In 2002 grazing was re-introduced into the management rotation.

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	1916		63.20%
Prairie Restoration	809		26.70%
Trees	231		7.60%
Native Warm Season Grass planting	42		1.40%
Old Field	31		1.07%
Roads and Parking Lots	1		0.03%
Total	3030		100%
Stream frontage		126,747	

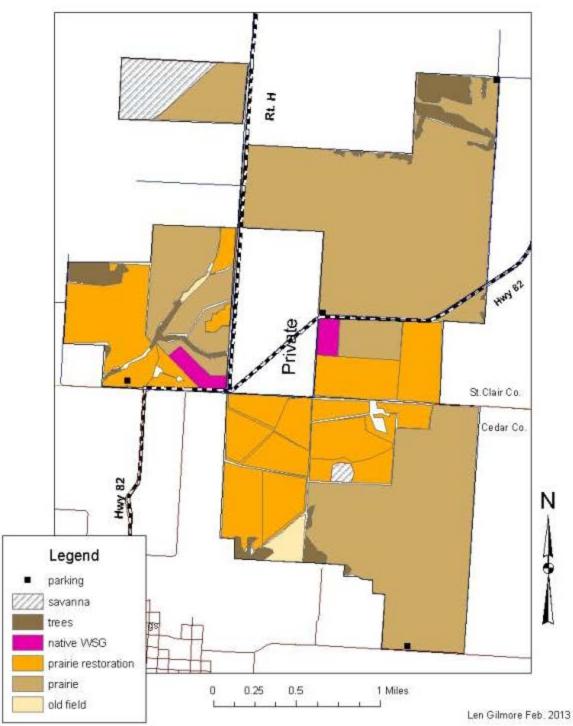
Current Land and Water Types





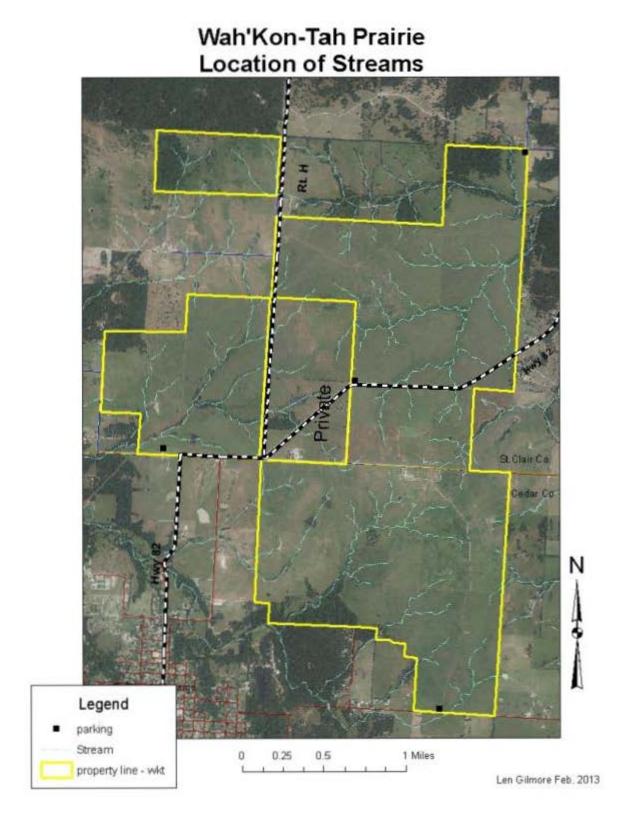
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Attachment 8: Wah'Kon Tah Prairie 2013 Land Cover

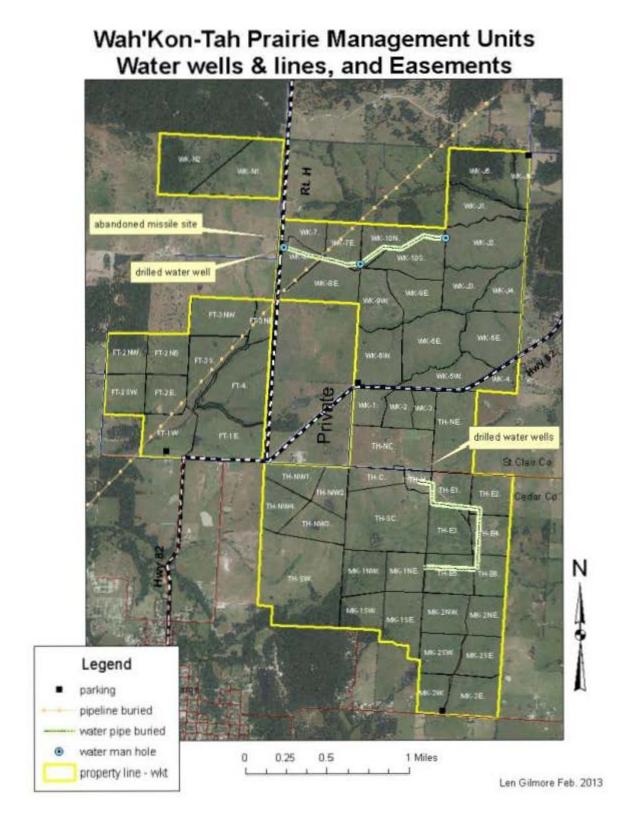


Wah'Kon Tah Prairie 2013 Land Cover

Attachment 9: Wah'Kon-Tah Prairie Location of Streams



Attachment 10: Wah'Kon-Tah Prairie Management Units Water Wells, Lines, Easements



Attachment 11: Monegaw Prairie Area Background

Monegaw Prairie was purchased by the Nature Conservancy in 1975 with funds from Miss Katherine Ordway. The south 90 acres was purchased by the Missouri Department of Conservation from The Nature Conservancy in 1978. The area is named after a latter day Osage Chief who reportedly lived in the Monegaw Springs area. Elevations are from 840 to 950 feet above MSL.

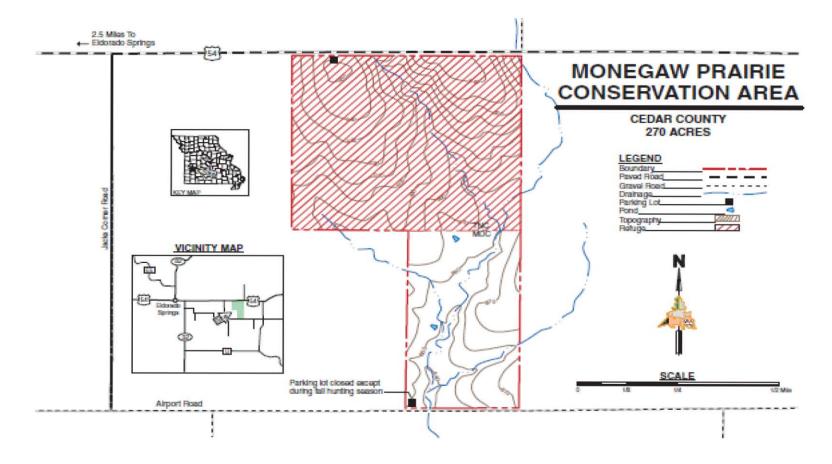
The past use of this area was periodic having and grazing. Tall fescue was seeded, prior to TNC purchase, in the northwestern portion of the area.

Current Land and Water Types

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	270		100%
Total	270		100%
Stream frontage		11,143	

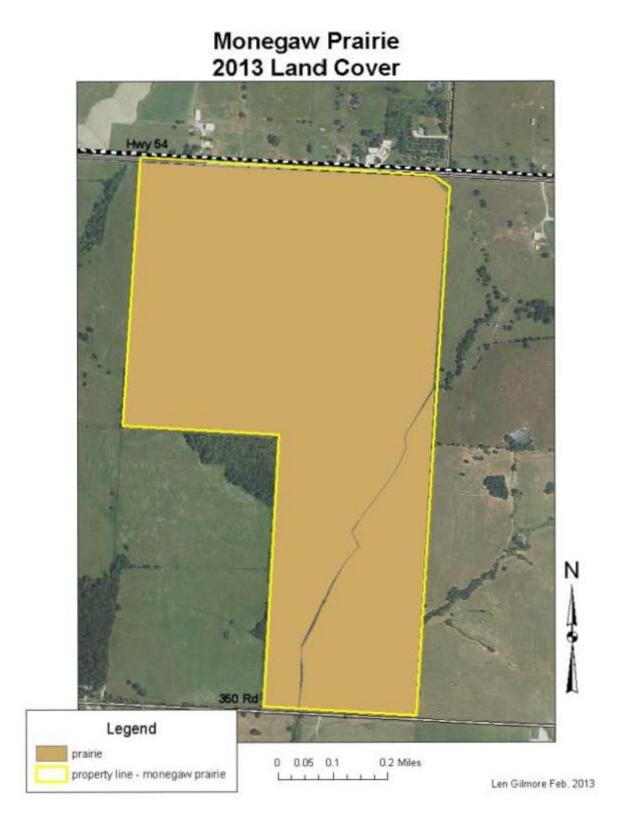
* Trees have been removed from the area. Shrubs occur in the bottom of the drainages.





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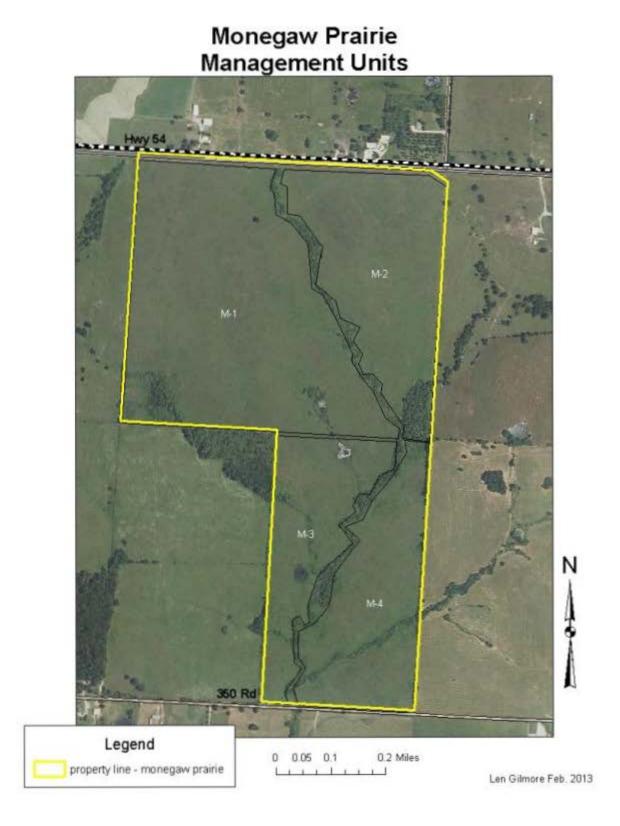
Attachment 13: Monegaw Prairie 2013 Land Cover



Attachment 14: Monegaw Prairie Location of Streams



Attachment 15: Monegaw Prairie Management Units



Attachment 16: Gay Feather Prairie Area Background

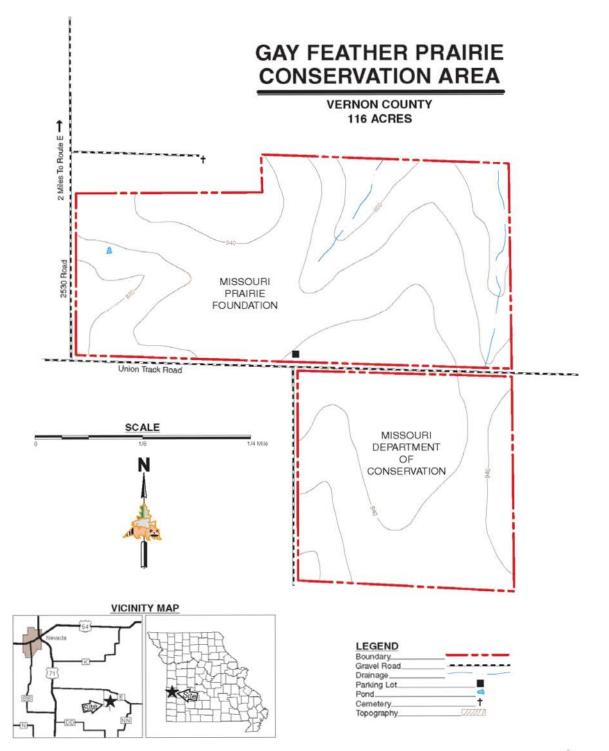
Seventy-six acres were purchased by Missouri Prairie Foundation in 1976 forming the Gayfeather Prairie. The Missouri Department of Conservation purchased an additional 40 acres in 1984 making the prairie area a total of 116 acres. The area is named after one of the showy prairie flowers of the genus *Liatris*. Elevations range from 910 to 940 feet above MSL.

The past use of this area was annual having. Since purchase, a hay rotation of rest-cut with periodic prescribed burns has been conducted.

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	114		98.3%
Trees	2		1.7%
Total	116		100%
Stream frontage		2,980	

Current Land and Water Types





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Attachment 18: Gay Feather Prairie 2013 Land Cover



Attachment 19: Gay Feather Prairie Location of Streams

Gay Feather Prairie Location of Streams Union Track Rd Ν Legend parking Stream 0 0.03 0.06 0.12 Miles property line - gayfeather prairie 11111 L Len Gilmore Feb. 2013

Attachment 20: Gay Feather Prairie Management Units



Attachment 21: Bristow Conservation Area Background

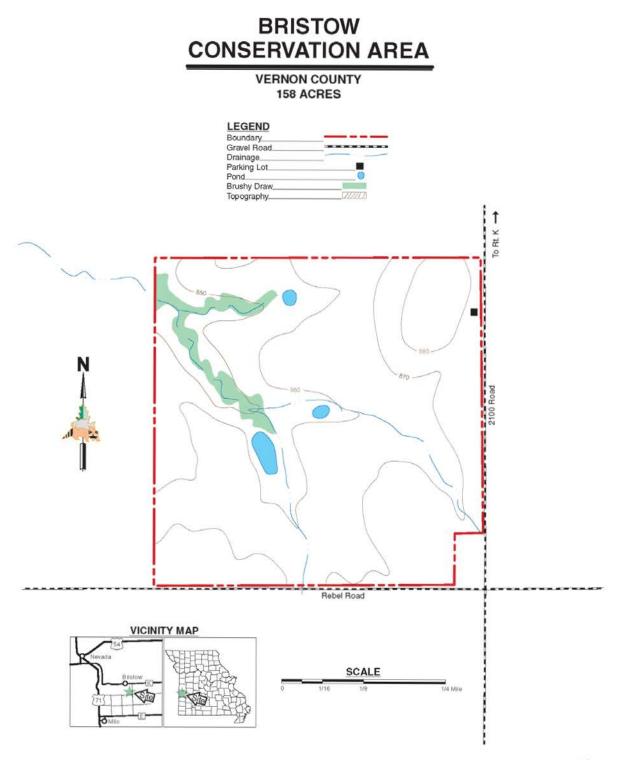
Bristow was acquired by MDC in 1992. The majority of the native prairie here was plowed or converted in the past to make way for other land uses. Bristow still has three native prairie remnants in the northwest portion of the area. Elevations range from 840 to 880 feet above MSL.

Management practices after acquisition included prescribed burning, haying, and other tools to simulate historic disturbances that maintain healthy grasslands and limit the negative impacts of invasive plants, including trees, which were historically uncommon here. Management priorities include providing nesting and brood-rearing habitat for Bobwhite Quail and other grassland birds while maintaining the high quality native prairie remnants.

			% of
Land/Water Type	Acres	Feet	Area
Crop Fields	71.5		45.2%
Native Warm Season Grass planting	27.9		17.7%
Native Prairie	24.8		15.7%
Old Field	17.2		10.9%
Trees	14.8		9.4%
Roads and Parking Lots	1.8		1.1%
Total	158		100%
Stream frontage		7,448	

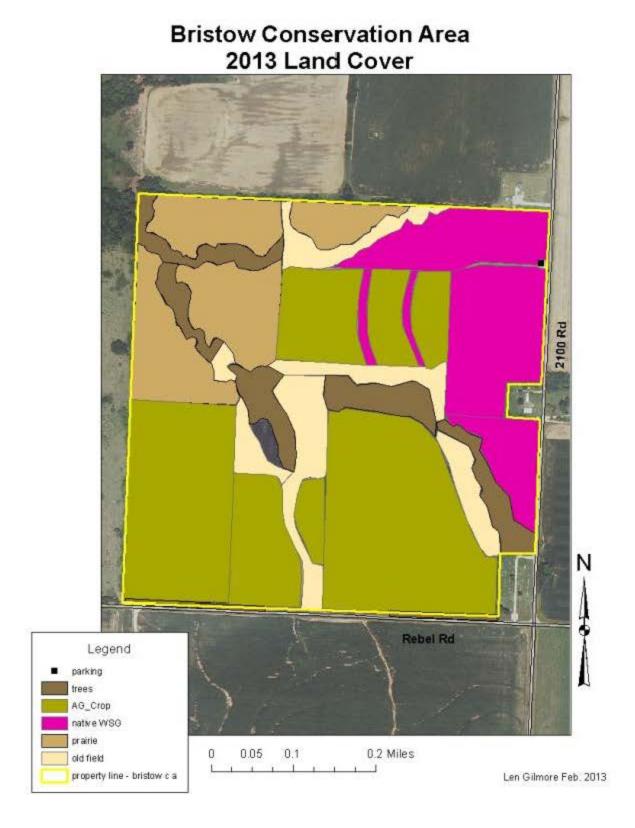
Current Land and Water Types

Attachment 22: Bristow CA Area Map



Conservation Commission of the State of Missouri © 12/07 🧥

Attachment 23: Bristow CA 2013 Land Cover



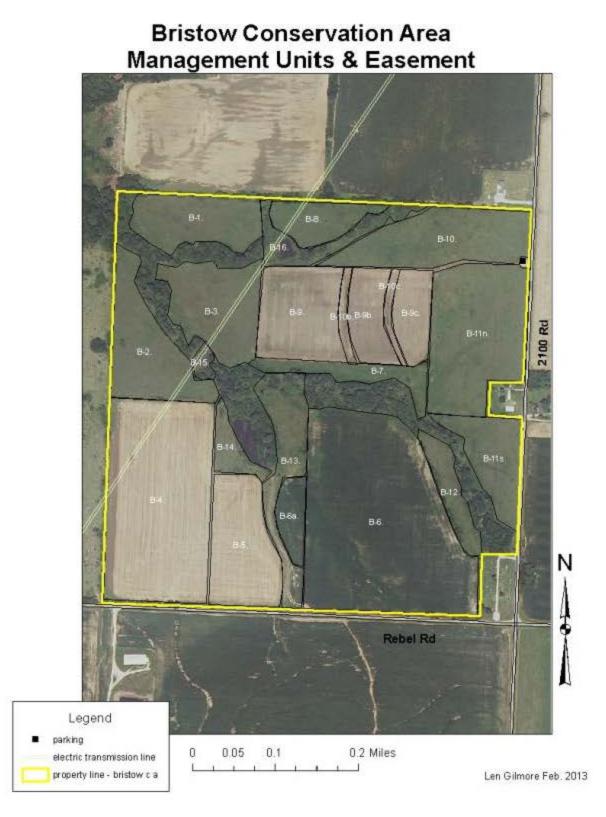
Attachment 24: Bristow CA Location of Streams

Bristow Conservation Area Location of Streams



Len Gilmore Feb. 2013

Attachment 25: Bristow CA Management Units and Easements



Attachment 26: Osage Prairie Area Background

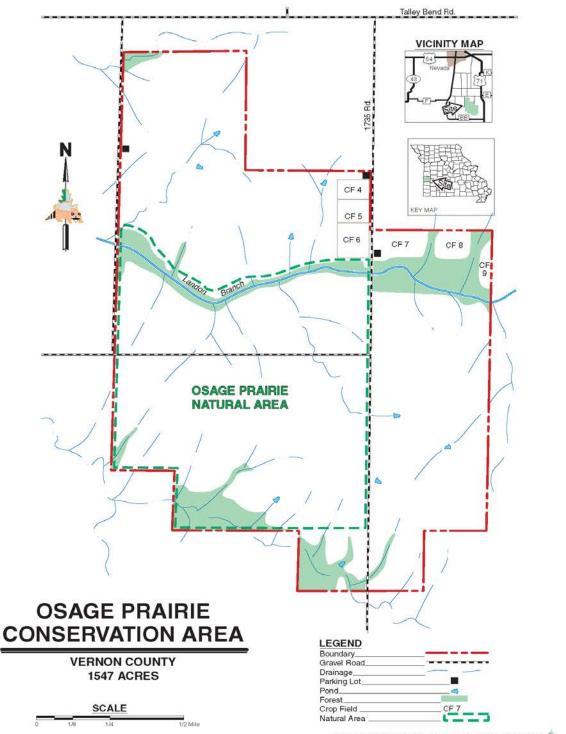
Milo Prairie (85 acres) was one of the first tracts purchased by the Missouri Department of Conservation in 1959 for conservation of the prairie chicken. The Nature Conservancy, with funds from Miss Katherine Ordway, purchased 1,115 acres for their first Missouri prairie in 1972, and renamed the prairie Osage. The Conservancy later purchased an additional 80 acres. In 1981 the Conservation Department purchased 267 acres and in 1982 purchased all of the Conservancy ownership. The area is named after the main Indian tribe of the region. Elevations range from 810 to 910 feet above MSL.

Before The Nature Conservancy acquisition the area was annually grazed at an excessive rate creating overgrazing on 90% of the acreage. The area purchased by MDC was annually hayed. Since purchase, the area has been managed by a combination of rest-haying-grazing with periodic prescribed burns. A 335 acre tract was designated as a state Natural Area in two segments on December 20, 1971 and August 26, 1975.

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	1338		86.48%
Trees	136.5		8.8%
Crop Fields	49		3.2%
Old Field	20		1.3%
Native Warm Season Grass planting	3		0.2%
Roads and Parking Lots	0.5		0.03%
Total	1547		100%
Stream frontage		76,696	

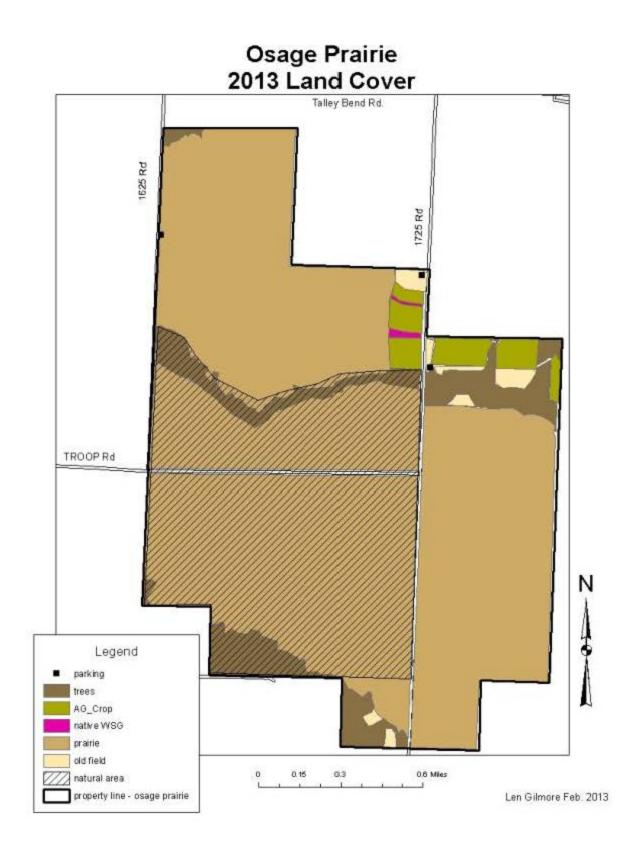
Current Land and Water Types

Attachment 27: Osage Prairie CA Area Map



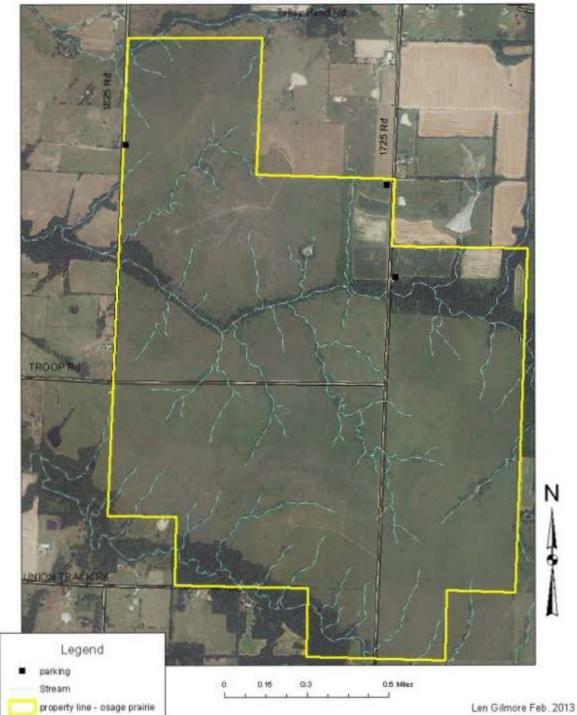
Conservation Commission of the State of Missouri @ 12/08 🔬

Attachment 28: Osage Prairie 2013 Land Cover

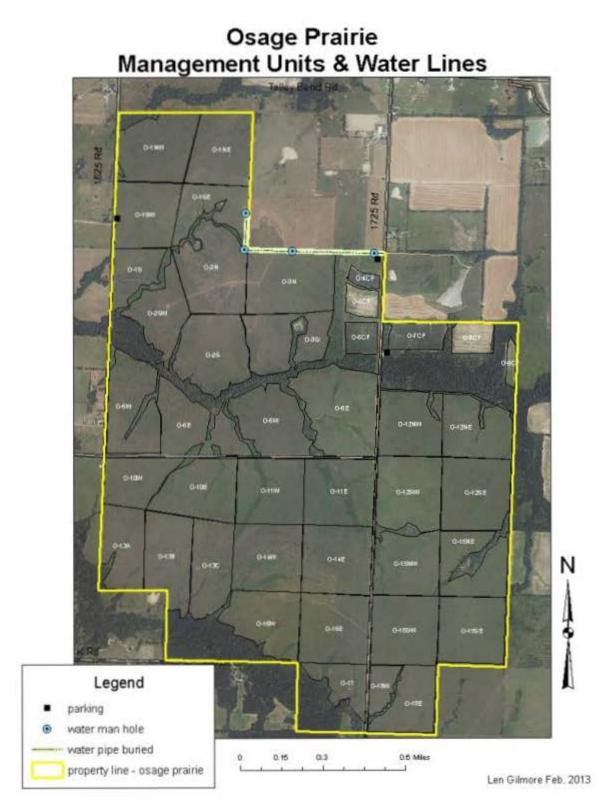


Attachment 29: Osage Prairie Locations of Streams

Osage Prairie Locations of Streams



Attachment 30: Osage Prairie Management Units and Water Lines



Attachment 31: Little Osage Prairie Area Background

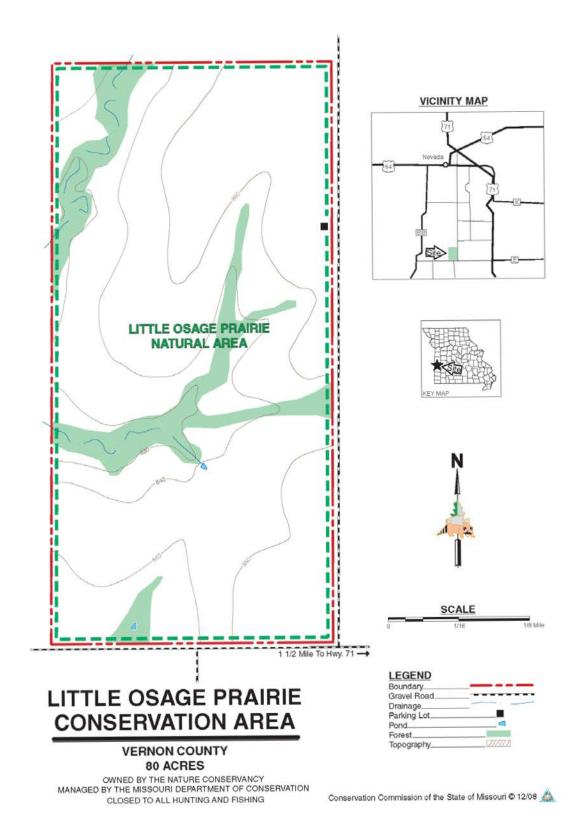
Little Osage Prairie was purchased by the Nature Conservancy in 1972 with funds from Miss Katherine Ordway. The area was named as a smaller unit of Osage Prairie which was named for the major Indian tribe of the region. Elevations range from 820 to 860 feet above MSL.

Prior to purchase the area was annually hayed with some light grazing. Since purchase a rest-cuthay rotation has been conducted with periodic prescribed burning. A parking lot was installed just off the county road on the east boundary.

The area was designated as a Missouri Natural Area August 26, 1975.

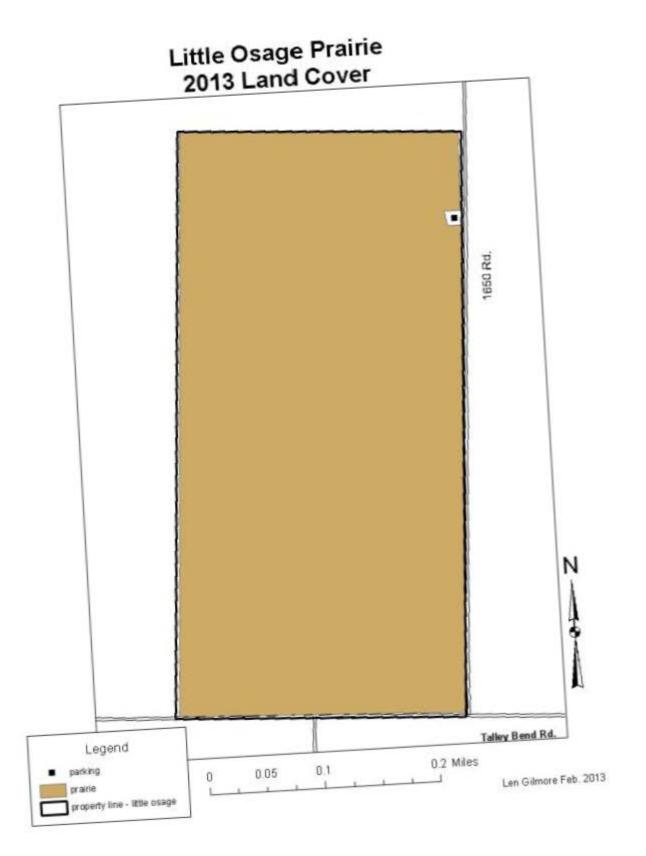
Current Land and Water Types

			% of
Land/Water Type	Acres	Feet	Area
Native Prairie	80		100%
Total	80		100%
Stream frontage		4,628	



Attachment 32: Little Osage Prairie Conservation Area Map

Attachment 33: Little Osage Prairie 2013 Land Cover



Attachment 34: Little Osage Prairie Locations of Streams



Attachment 35: Little Osage Prairie Management Units

Little Osage Prairie Management Units 1650 Rd. LO-IN N 0.45 Talley Bend Rd Legend 0.05 0.1 0.2 Miles 0 parking property line - little osage Len Gilmore Feb. 2013

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